

REMARKS

Claims 1 – 43 are pending and stand rejected by the Office Action. Applicant respectfully traverses all rejections.

Rejections under 35 U.S.C. §103(a)

The Office has rejected claims 1 – 9, 15 – 24, and 32 – 41 under 35 U.S.C. §103(a) as being unpatentable over Mark Allen Weiss's Data Structure and Algorithm Analysis in C++ Second Edition © 1999 (the Weiss reference) in view of the European Patent EP 0366585 B1 granted to Michael Edward Arnold (the Arnold reference). The Office Action has also rejected claims 10 – 14, 25 – 31, and 43 as being unpatentable over the Arnold reference in view of Douglas Comer's Operating System Design: The Xinu Approach © 1984 (the Comer reference).

Applicant has amended independent claims 1, 6, 15, 23, 32, 36, 40, and 43 to refer to “an **atomic dual target compare and swap**” instead of a “**double compare and swap**” and has amended independent claim 10 to qualify the multi-way compare and swap as an atomic multi-way compare and swap. Applicant has similarly amended dependent claims 14 and 20. Applicant acknowledges Examiner's alternative interpretation of “double compare and swap” and presents claim amendments in an attempt to more clearly recite that which Applicant believes was already a proper interpretation of claim language originally presented. Accordingly, Applicant respectfully requests allowance of all claims.

Applicant respectfully submits that none of the references, whether standing alone or in combination, disclose or suggest utilization of an atomic dual target compare and swap or an atomic multi-way compare and swap 1) to update an index of a double-ended data structure and an element of the double-ended data structure adjacent to the element indicated by the index, and 2) to provide a status indication of the double-ended data structure.

In summary, none of the references disclose or suggest, either taken alone or in combination, use, as specifically claimed, of atomic operations, such as an atomic dual target compare and swap or an atomic multi-way compare and swap in support of concurrent access operations on a data structure. Accordingly, independent claims 1, 6, 10, 15, 23, 25, 32, 36, 40, and 43 are allowable and a Notice of Allowance to that effect is respectfully requested.

Dependent Claims

Applicant respectfully traverses all rejections with respect to the dependent claims. All of the dependent claims are dependent on corresponding ones of the above allowable independent claims. Applicant respectfully submits that all of the dependent claims are allowable for at least the reasons discussed above.

Conclusion

In summary, claims 1 – 43 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that, on the date shown below, this correspondence is being

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- ☐ facsimile transmitted to the US Patent and Trademark Office.



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Date

Respectfully submitted,



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